INSTRUCTIONS

-J03260 REV. 10-13-2005

Kit Numbers 33034-03A, 33040-03A

DYNA 6 SPEED TRANSMISSION - COMPLETE

General

These kits fit 2001 to 2005 FXD model motorcycles. Requires separate purchase of cable Sidecover Release Kit or Hydraulic Sidecover Release Kit. See retail catalog for parts numbers. Refer to Instructions included in Sidecover Release Kits to complete installation of Screamin' Eagle 6-Speed Transmission or Gearset Kits.

Kit 33034-03A is a complete 6 Speed Silver and Chrome transmission.

Kit 33040-03A is a complete 6 Speed Black and Chrome transmission.

	STOCK 5 - SPEED	SE 6 - SPEED
1st	3.210	3.210
2 nd	2.209	2.209
3 rd	1.572	1.572
4 th	1.226	1.226
5 th	1.000	1.000
6 th	NA	0.885

Transmission Ratio Comparison

⚠WARNING

The rider's safety depends upon the correct installation of this kit. If the procedure is not within your capabilities or you do not have the correct tools, have your Harley-Davidson dealer perform the installation. Improper installation of this kit could result in death or serious injury. (00308a)

NOTE

A Service Manual for your model motorcycle is available from any Harley-Davidson dealer.

Removal of Original Transmission

1. Position motorcycle on a suitable lift.

⚠WARNING

To prevent accidental vehicle start-up, which could cause death or serious injury, disconnect battery cables (negative (-) cable first) before proceeding. (00307a)

⚠WARNING

Disconnect negative (-) battery cable first. If positive (+) cable should contact ground with negative (-) cable connected, the resulting sparks can cause a battery explosion, which could result in death or serious injury. (00049a)

2. Refer to the Service Manual and follow the instructions given to remove the seat and disconnect the battery cables, negative cable first.
3. Refer to the TRANSMISSION CASE REMOVAL in the Service Manual and follow the instructions given to remove the components with the following steps.
4. Refer to REMOVING ENGINE FROM THE CHASSIS in the Service Manual and follow the instructions given for the removal of the transmission with the following exceptions:
   a. The air cleaner, fuel tank and carburetor need not be removed.
   b. The spark plugs do not need to be removed.
   c. Stabilizer link nut and horn bracket bolts do not need to be removed.
   d. MAP sensor does not have to be removed.
   e. The front downtubes do not need to be protected.
   f. A ratchet strap is not needed to secure the transmission.
5 Refer to the CLUTCH CONTROL in the Service Manual and follow the instructions given to remove the clutch cover and disconnect the clutch cable end from the cover and set the cable aside.

NOTE

Be sure to remove the inspection cover's top and rear screws or the inspection cover, primary chaincase cover and the inner primary chaincase housing will be damaged.

6. Refer to PRIMARY CHAINCASE REMOVAL in the Service Manual and follow the instructions given to remove the primary chaincase cover.

⚠WARNING

Wear safety glasses or goggles when removing or installing retaining rings. Retaining rings can slip from the pliers and could be propelled with enough force to cause serious eye injury. (00312a)

7. Refer to the PRIMARY CHAINCASE HOUSING in the Service Manual and follow the instructions given to remove the primary chaincase housing.
8. Refer to the REAR WHEEL REMOVAL in the Service Manual and follow the instructions given to remove the belt.
   a. Remove the belt guard and debris deflector.
   b. Remove spring clip.
   c. Loosen axle nut enough to slide wheel forward.
   d. Note the rear wheel does not need to be removed.
   e. Remove the belt and set aside.

9. See the VEHICLE SPEED SENSOR section and unplug the vehicle speedometer sensor connection and remove the mounting bolt. Lift sensor from the transmission case and set aside.

10. Refer to NEUTRAL SWITCH and disconnect the connectors from the neutral switch.

11. Refer to the STARTER REMOVAL in the Service Manual and follow the instructions given to remove the the starter.

12 Position a jack with a wooden block under the engine and transmission oil pan.

13. Refer to the ENGINE MOUNTS in the Service Manual and follow the instructions given to remove the transmission from the rear isolator.

14. Refer to the REAR FORK REMOVAL in the Service Manual and follow the instructions given to remove the plug, screw and lockwasher from the rear fork. Remove the screw and lockwasher and slide the pivot shaft with the attached nut out the right side.

15. Remove the four bolts and washers connecting the engine to the transmission.

16. The transmission is now loose from the frame and engine and resting on a support.

17. Slide the transmission toward the rear of the bike (to clear the dowel pins) and lift the transmission out the right side.

Installation of New Transmission

1. Refer to your Service Manual and follow the instructions given to install the new transmission into the motorcycle.

2. Slide the transmission from the right and align the four bolt holes on the transmission with the four holes on the engine.

3. Install the four bolts and washers removed in step 15.

4. See Figure 1. Tighten the four transmission mounting bolts in a cross pattern sequence as follows:

   a. First tighten all four in turn to 15 ft-lbs (20.3 Nm).

   b. Then tighten all four in turn to 30-35 ft-lbs (40.7-47.5 Nm).

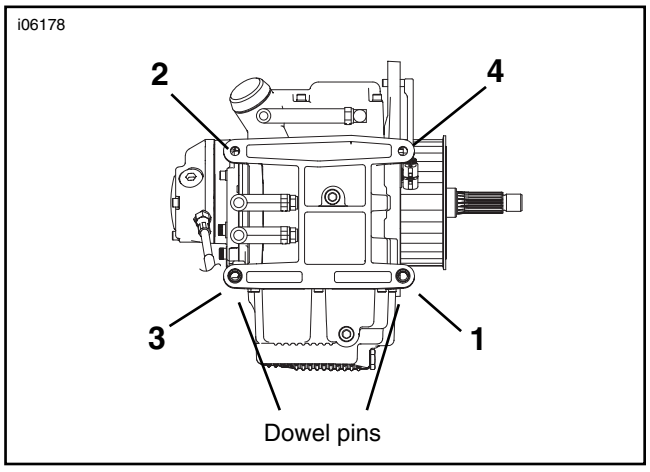

Figure 1. Transmission to Crankcase Torque Sequence
Transmission viewed from front

5. Slide fork assembly into position aligning with mounting boss of transmission case. Install pivot shaft removed with attached nut. Install washer and screw. Tighten screw to 45-50 ft-lbs (61.0-67.8 Nm).

6. Install the two screws, washer and nuts to the rubber isolator mounting assembly at the rear lower boss of the transmission. Tighten to 18-22 ft-lbs (24.4-29.8 Nm).

7. Install the two socket head screws, lockwashers and washer through the rear frame transmission mounting holes. Tighten to 22-27 ft-lbs (29.8-36.6 Nm).

8. Install belt over rear wheel sprocket and transmission sprocket. Refer to REAR BELT DEFLECTION in the Service Manual and follow the instructions given to correctly install the belt to the proper deflection.

9. Refer to the PRIMARY CHAINCASE HOUSING in the Service Manual and follow the instructions given to install the chaincase housing.

10. Refer to NEUTRAL SWITCH in the Service Manual and follow the instructions giver to install these connections.

11. Refer to VEHICLE SPEED SENSOR in the Service Manual and follow the instruction given to install the speedometer speed sensor and use the **new** o-ring (85) provided in the kit.

12. Refer to the STARTER INSTALLATION in the Service Manual and follow instructions given to install starter from the right side.

13. Refer to the DRIVE COMPONENTS in the Service Manual and follow the instruction given to install the clutch assembly, primary chain and compensating sprocket as a single assembly.

14. Install the side cover.

    For **Cable Actuated Clutch**: Follow the instructions in the SE 6-Speed Cable Clutch Side Cover and Release Pushrod Kit (Part Number 38752-04).

    For **Hydraulic Clutch**: Follow the instructions in the Hydraulic Clutch Side Cover and Release Pushrod Kit (Part Number 38753-04), and in the Hydraulic Clutch Kit (Part Number 45033-03, Black or 45383-03, Chrome).

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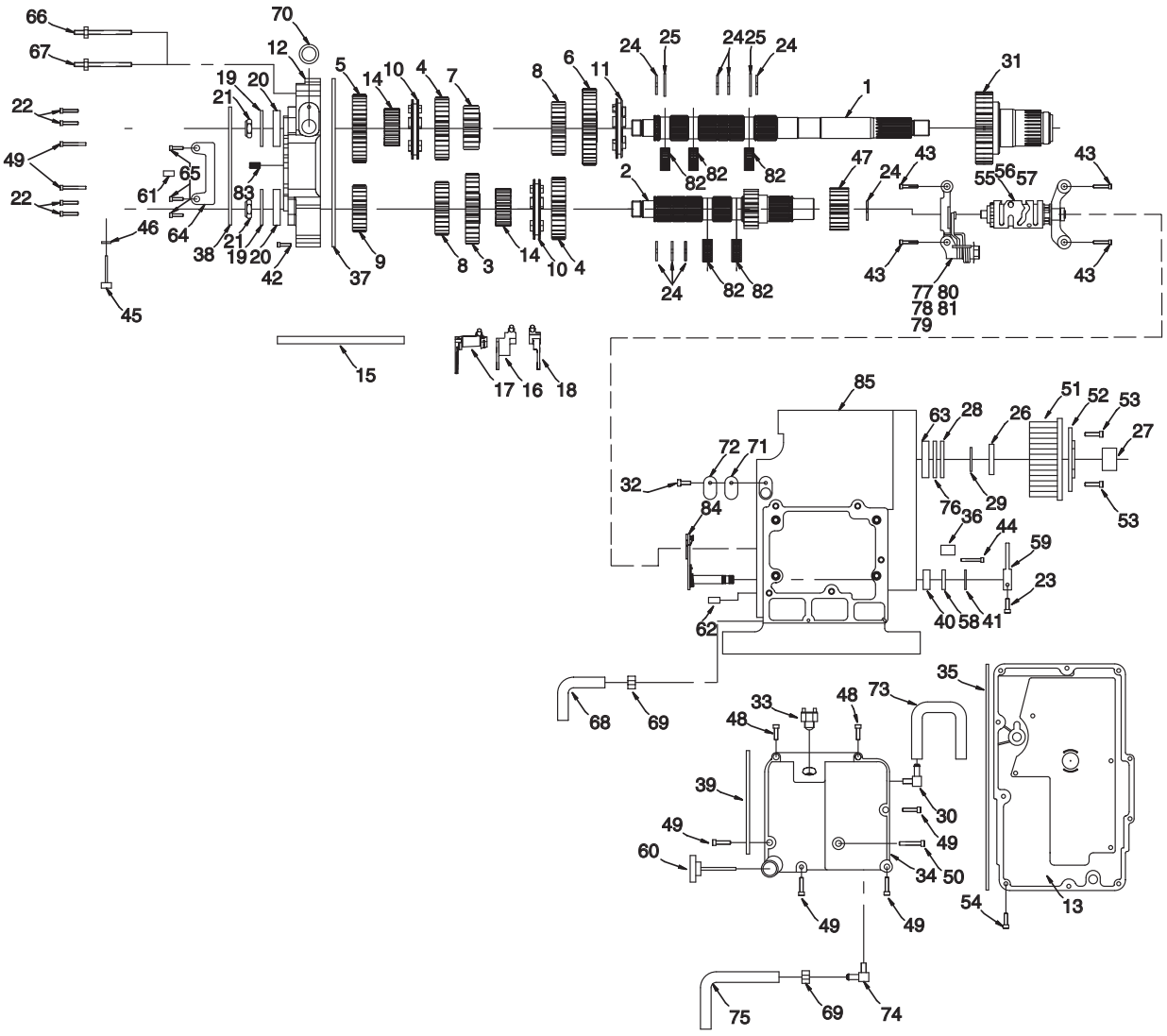

Item	Description (Qty)	Part No.	Item	Description (Qty)	Part No.
1	Mainshaft	35058-03	16	Shifter Fork, 1-2 Assembly	35143-03
2	Countershaft	35059-03	17	Shifter Fork, 3-4 Assembly	35144-03
3	Countershaft 1st Gear	35080-03	18	Shifter Fork, 5-6 Assembly	35145-03
4	Mainshaft 3rd Gear/		19	Door Retaining Ring (2)	35087-99
	Countershaft 2nd Gear (2)	35083-03	20	Trap Door Bearing (2)	8992A
5	Mainshaft 4th Gear	35104-03	21	Mainshaft/Countershaft	
6	Mainshaft 6th Gear	35131-03		Locknut (2)	35078-79
7	Mainshaft 1st Gear	35134-03	22	Clutch Release Cover	
8	Countershaft 3rd Gear/			Lower Screw (4)	4718A
	Mainshaft 2nd Gear (2)	35135-03	23	Shifter Lever Screw	856A
9	Countershaft 4th Gear	35136-03	24	Pushrod Thrust Washer	37313-80
10	Shift Ring, 1-2, 3-4 (2)	35137-03	25	Mainshaft Thrust Washer (2)	6003
11	Shift Ring, 5-6	35138-03	26	Sprocket Spacer	33344-94
12	Chrome Trapdoor with Ear	35139-0313	27	Mainshaft Race	34091-85A
13	Oil Pan with Baffle, Plain	26085-99A	28	Main Case Seal	12067B
14	Sleeve Spline (2)	35140-03	29	Quad Seal	11165
15	Shifter Fork Shaft	34088-87A	30	Vent Top Lid Fitting	62375-57A

Item	Description (Qty)	Part No.
31	Mainshaft 5th Gear	35237-03
32	Speedo Sensor Plate Screw	4705
33	Neutral Switch	33904-00A
34	Chrome Lid Top	34469-01
35	Oil Pan Gasket	26072-99A
36	Countershaft Bearing	8977
37	Trap Door Gasket	35147-03
38	Clutch Release Cover Gasket	35148-03
39	Lid Gasket	34917-99B
40	Shifter Shaft Seal	12045
41	Shifter Shaft Retaining Ring	11150
42	Trap Door Screw, Upper	4814A
43	Pillow Block Screw (4)	3909
44	Shifter Centering Screw	34978-00A
45	Chrome Dipstick	37075-87
46	Dipstick O-Ring	11132
47	Countershaft Gear, 5th	35238-03
48	Top Lid Screw (2)	4740A
49	Clutch Release Cover Screw Upper (6)	4717A
50	Top Lid Screw	4822A
51	Transmission Pulley	40250-94C
52	Mega Nut	35236-03
53	Mega Nut Screw (2)	4069A
54	Oil Pan Screw (10)	4741A
55	Shift Drum Assembly	35142-03
56	Shifter Shaft Assembly	35146-03
57	Shift Drum Retainer	11342
58	Shifter Seal Washer	6497HW
59	Shifter Lever	33849-97
60	Clear Dip Stick	62853-99
61	Plug for Door	45853-99
62	Door Roll Pin	634
63	Main Case Bearing	8996A
64	Harness Door Retaining Clip	38709-99
65	Trap Door Screw, Lower (3)	3249
66	Top Door Stud	16709-95
67	Bottom Door Stud	16708-95
68	Motor Oil Hose (2)	62726-99
69	Hose Clamp (Black) (3)	10249
70	Speedo Sensor O-Ring	11289A
71	Sensor Plate Gasket	35152-03
72	Sensor Plate	35153-03
73	Transmission Top Cover Vent Hose	42533-91A
74	Elbow Motor Vent Fitting	16334-02
75	Top Cover Vent Motor Hose	45795-02
76	Case Bearing Retaining Ring	11161
77	Right Pillow Block	33304-00
78	Detent Spring (Right Pillow Block)	33375-00A
79	Follower Detent (Right Pillow Block)	33364-00A
80	Detent Arm Spring (Right Pillow Block)	33374-00
81	Detent Arm Screw (Left Pillow Block)	33376-00
82	Cage Bearing Split (5)	8876A
83	Shifter Shaft Set Screw	3784
84	Shifter Shaft Assembly	35146-03
85	Transmission Case Sub-Assembly (Silver) (2001 and Up FXD	34791-03

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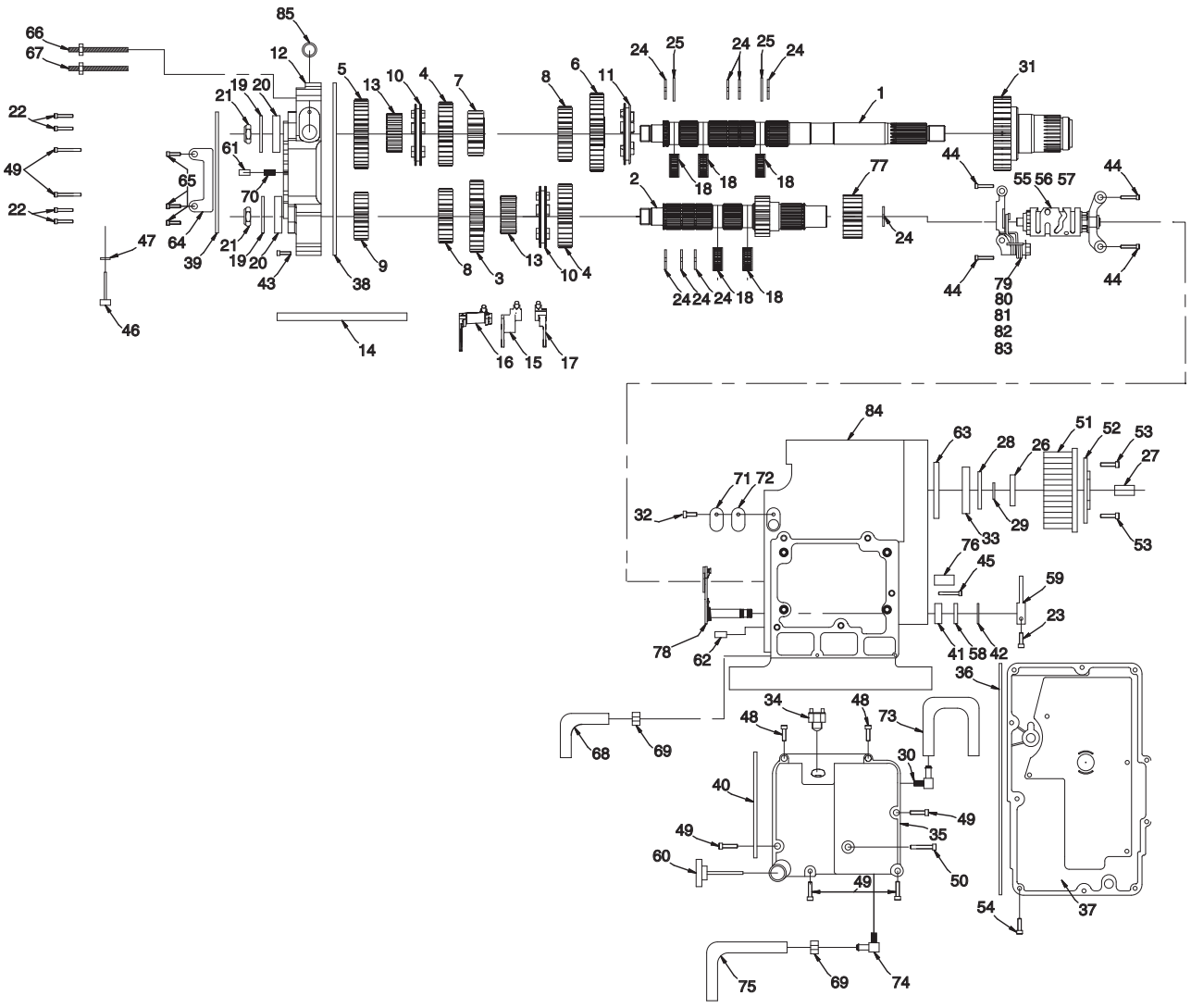

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69	Hose Clamp (Black) (3)	10249
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78	Shifter Shaft Assembly	35146-03
79	Right Pillow Block	33304-00
80	Detent Arm Screw	33376-00
81	Detent Sleeve	33375-00A
82	Detent Follower	33364-00A
83	Detent Arm Spring	33374-00
84	Transmission Sub-Assemby Case, (Black, 2001 and UP FXD)	34795-03
85	Speedo Sensor O-Ring	11289A